Fishery Conservation and Management

Table 1a to Part 660, Subpart C—2013, Specifications of OFL, ABC, ACL, ACT and Fishery Harvest guidelines (weights in metric tons)

Table 1a. To Part 660, Subpart C- 2013, Specifications of OFL, ABC, ACL, ACT and Fishery Harvest guidelines (weights in metric tons).

Fishery ACL a/ Species OFL ABC HG b/ Area Arrowtooth flounder c/ Coastwide 7,391 6,157 6,157 4.070 Black d/ e/ N of 46°16' N. 430 411 411 397 S of 46°16' N. lat. 1,159 1,108 1,000 1,000 S of 40°10' N. lat. Bocaccio f/ 311.6 884 845 320 Cabezon g/ h/ 46°16' to 42° N. lat 49 47 47 47 S of 42° N. lat. 170 163 163 163 S of 34°27' N. lat. California scorpionfish i/ 120 118 126 120 Canary rockfish j/ Coastwide 752 719 116 98.5 Chilipepper k/ S of 40°10' N. lat. 1,768 1,690 1,466 1,690 Cowcod 1/ S of 40°10' N. lat. 11 2.9 Darkblotched rockfish m/ Coastwide 541 517 31' 296.2 Dover sole n/ Coastwide 92,955 88,865 25,000 23,410 7,129 6,815 6,815 6,712 English sole o/ Coastwide N of 40° 10' N. lat. Lingcod p/ q/ 3,334 3,036 3,036 2.758 S of 40° 10' N. lat. 1,334 1,111 1,111 1,102 Longnose skate r/ Coastwide 1,928 Longspine thornyhead s/ N of 34°27' N. lat. 2,009 1,963 3,391 2,825 S of 34°27' N. lat. 356 353 Minor nearshore rockfish north N of 40°10' N. lat 110 94 94 94 Minor shelf rockfish north N of 40°10' N. lat. 2,183 968 903 1,920 Minor slope rockfish north N of 40°10' N. lat. 1,518 1,098 1,381 1,160 Minor nearshore rockfish south w/ S of 40°10' N. lat. 1,164 1,005 990 990 Minor shelf rockfish south S of 40°10' N. lat. 1,910 1,617 714 668.0 Minor slope rockfish south S of 40°10' N. lat. 681 618 597 618 Other fish z/ Coastwide 6,832 4,717 4,717 4,540 Other flatfish aa/ Coastwide 10,060 6,982 4,884 4,682 Pacific cod bb/ Coastwide 3,200 2,221 1,600 1,191 N of 40° 10' N. lat. Pacific ocean perch (POP) cc/ 844 80' 150 133.5 Coastwide Pacific whiting dd/ 626,364 dd/ dd/ 204,040 Petrale sole Coastwide 2,711 2,592 2,592 ee Table Sablefish ff/ gg/ N of 36° N. lat. 6.621 6.045 S of 36° N. lat. 1,434 1,439 Shortbelly hh/ 6,950 5.789 Coastwide 5.0 4.8 Shortspine thornyhead ii/ N of 34°27' N. lat. 1,540 1,481 2,333 2,230 S of 34°27' N. 39' 355 S of 40°10' N. lat. 1,598 Splitnose jj/ 1,610 1,610 1,684 Starry flounder kk/ Coastwide 1,825 1,520 1,520 1,513 Widow 11/ Coastwide 4,841 4,598 1,411 1,500 Yelloweye rockfish mm/ 12.2 Coastwide 51 43 18 N of 40°10' N. lat. 4,378 Yellowtail nn/ 4,579 4,378 3,677

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a/ ACLs, ACTs and HGs are specified as total catch values.

b/ Fishery harvest guideline means the harvest guideline or quota after subtracting from the ACL or ACT Pacific Coast treaty Indian tribes allocations or projected catch, projected research catch, deductions for fishing mortality in non-groundfish fisheries, and deductions for EFPs.

c/ Arrowtooth flounder. The stock was last assessed in 2007 and was estimated to be at 79 percent of its unfished biomass in 2007. The OFL of 7,391 mt is based on the 2007 assessment with an $F_{30\%}$ F_{MSY} proxy. The ABC of 6,157 mt is a 17 percent reduction from the OFL (σ =0.72/P*=0.40) as it's a category 2 stock. Because the stock is above $B_{25\%}$, the ACL is set equal to the ABC. 2,087.39 mt is deducted from the ACL for the Tribal fishery (2,041 mt), the incidental open access fishery (30 mt), and research catch (16.39 mt), resulting in a fishery HG of 4,070 mt. d/ Black rockfish north (Washington). A stock assessment was prepared for black rockfish north of 45°46' N. lat. (Cape Falcon, Oregon) in 2007. The biomass in the north was estimated to be at 53 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of $F_{50\%}$. The resulting OFL for the area north of 46°16 N. lat. is 430 mt and is 97 percent of the OFL from the assessed area, based on the area distribution of historical catch. The ABC of 411 mt for the north is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. The ACL was set equal to the ABC, since the stock is above $B_{40\%}$. 14 mt is deducted from the ACL for the Tribal fishery, resulting in a fishery HG of 397 mt.

e/ Black rockfish south (Oregon and California). A stock assessment was prepared for black rockfish south of $45^{\circ}46$ N. lat. (Cape Falcon, Oregon) to Central California in 2007. The biomass in the south was estimated to be at 70 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of $F_{50\%}$ plus 3 percent of the OFL from the stock assessment prepared for black rockfish north of $45^{\circ}46^{\circ}$ N. lat. The resulting OFL for the area south of $46^{\circ}16$ N. lat. is 1,159 mt. The ABC of 1,108 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. The 2013 and 2014 ACL is 1,000 mt, which maintains the constant catch strategy designed to keep the stock biomass above $B_{40\%}$. There are no deductions from the ACL, thus the fishery HG is equal to the ACL. The black rockfish ACL in the area south of $46^{\circ}16^{\circ}$ N. lat. (Columbia River), is subdivided with separate HGs being set for the waters off Oregon (580 mt/58 percent) and for the waters off California (420 mt/42 percent).

f/Bocaccio. A bocaccio stock assessment update was prepared in 2011 for the bocaccio stock between the U.S.-Mexico border and Cape Blanco. The stock is managed with stock-specific harvest specifications south of $40^{\circ}10^{\circ}$ N. lat. and within the minor shelf rockfish complex north of $40^{\circ}10^{\circ}$ N. lat. Historical catch distribution of approximately 6 percent was used to apportion the assessed stock to the area north of $40^{\circ}10^{\circ}$ N. lat. The bocaccio stock was estimated to be at 26 percent of its unfished biomass in 2011. The OFL of 884 mt is based on the 2011 stock assessment STAT model with an F_{MSY} proxy of $F_{50\%}$. The ABC of 845 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. The 320 mt ACL is based on a rebuilding plan with a target year to rebuild of 2022 and an SPR harvest rate of 77.7 percent. 8.4 mt is deducted from the ACL for the incidental open access fishery (0.7 mt), EFP catch (6.0 mt) and research catch (1.7 mt), resulting in a fishery HG of 311.6 mt. The California recreational fishery has an HG of 163.5.

g/ Cabezon (Oregon). A cabezon stock assessment was prepared in 2009. The cabezon biomass in waters off Oregon was estimated to be at 52 percent of its unfished biomass in 2009. The OFL of 49 mt was calculated using an $F_{\rm MSY}$ proxy of $F_{45\%}$. The ABC of 47 mt was based on a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 species. Because the stock is above $B_{40\%}$, the ACL is set equal to the ABC. No deductions are made from the ACL, so the fishery HG is equal to the ACL at 47 mt. Cabezon in waters off Oregon were removed from the "other fish" complex in 2011.

h/ Cabezon (California). A cabezon stock assessment was prepared in 2009. The cabezon biomass in waters off California was estimated to be at 48 percent of its unfished biomass in 2009. The OFL of 170 mt was calculated using an F_{MSY} proxy of $F_{45\%}$. The ABC of 163 mt was based on a 4 percent reduction from the OFL

 $(\sigma=0.36/P^*=0.45)$ as it's a category 1 stock. Because the stock is above $B_{40\%}$, the ACL is set equal to the ABC. No deductions are made from the ACL, so the fishery HG is equal to the ACL at 163 mt.

i/ California scorpionfish was assessed in 2005 and was estimated to be at 80 percent of its unfished biomass in 2005. The OFL of 126 mt is based on the 2005 assessment with a harvest rate proxy of $F_{50\%}$. The ABC of 120 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. Because the stock is above $B_{40\%}$, the ACL is set equal to the ABC. 2 mt is deducted from the ACL for the incidental open access fishery, resulting in a fishery HG of 118 mt.

j/ Canary rockfish. A canary rockfish stock assessment update was prepared in 2011 and the stock was estimated to be at 24 percent of its unfished biomass coastwide in 2011. The coastwide OFL of 752 mt is based on the new assessment with an F_{MSY} proxy of $F_{50\%}$. The ABC of 719 mt is a 4 percent reduction from the OFL

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 $(\sigma=0.36/P^*=0.45)$ as it's a category 1 stock. The ACL of 116 mt is based on a rebuilding plan with a target year to rebuild of 2030 and a SPR harvest rate of 88.7 percent. 17.5 mt is deducted from the ACL for the Tribal fishery (9.5 mt), the incidental open access fishery (2 mt), EFP catch (1.5 mt) and research catch (4.5 mt) resulting in a fishery HG of 98.52 mt. Recreational HGs are being specified as follows: Washington recreational 3.1; Oregon recreational 10.8 mt; and California recreational 22.4 mt.

k/ Chilipepper. The coastwide chilipepper stock was assessed in 2007 and estimated to be at 70 percent of its unfished biomass coastwide in 2006. Chilipepper are managed with stock-specific harvest specifications south of 40°10 N. lat. and within the minor shelf rockfish complex north of 40°10' N. lat. Projected OFLs are stratified north and south of 40°10' N. latitude based on the average 1998-2008 assessed area catch, which is 93 percent for the area south of 40°10' N. latitude and 7 percent for the area north of 40°10' N. latitude. South of 40°10' N. lat., the OFL of 1,768 mt is based on the 2007 assessment with an F_{MSY} proxy of $F_{50\%}$. The ABC of 1,690 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the ACL was set equal to the ABC. 224 mt is deducted from the ACL for the incidental open access fishery (5 mt), EFP fishing (210 mt), and research catch (9 mt), resulting in a fishery HG of 1.466 mt.

I/C Cowcod. A stock assessment update prepared in 2009 estimated the stock to be 5 percent of its unfished biomass in 2009. The OFLs for the Monterey and Conception areas were summed to derive the south of 40°10' N. lat. OFL of 11 mt. The ABC for the area south of 40°10' N. lat. is 9 mt. The assessed portion of the stock in the Conception Area was considered category 2, with a Conception Area contribution to the ABC of 5 mt, which is a 17 percent reduction from the OFL (σ =0.72/P*=0.40). The unassessed portion of the stock in the Monterey area was considered a category 3 stock, with a contribution to the ABC of 3 mt, which is a 31 percent reduction from the OFL (σ =1.44/P*=0.40). A single ACL of 3 mt is being set for both areas combined. The ACL of 3 mt is based on a rebuilding plan with a target year to rebuild of 2068 and an SPR rate of 82.7 percent. 0.1 mt is deducted from the ACL for the amount anticipated to be taken during research activity (0.1 mt) and EFP catch (0.03 mt) which results in a fishery HG of 2.9 mt.

m/ Darkblotched rockfish. A stock assessment update was prepared in 2011, and the stock was estimated to be at 30.2 percent of its unfished biomass in 2011. The OFL is projected to be 541 mt and is based on the 2011 stock assessment with an F_{MSY} proxy of $F_{50\%}$. The ABC of 517 mt is a 4 percent reduction from the OFL

 $(\sigma=0.36/P^*=0.45)$ as it's a category 1 stock. The ACL of 317 mt is based on a rebuilding plan with a target year to rebuild of 2025 and an SPR harvest rate of 64.9 percent. 20.8 mt is deducted from the ACL for the Tribal fishery (0.1 mt), the incidental open access fishery (18.4 mt), EFP catch (0.2 mt) and research catch (2.1 mt), resulting in a fishery HG of 296.2 mt.

n/ Dover sole. A 2011 Dover sole assessment estimated the stock to be at 83.7 percent of its unfished biomass in 2011. The OFL of 92,955 mt is based on the results of the 2011 stock assessment with an F_{MSY} proxy of $F_{30\%}$. The ABC of 88,865 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. Because the stock is above $B_{25\%}$ coastwide, the ACL could be set equal to the ABC. However, the ACL of 25,000 mt is set at a level below the ABC and higher than the maximum historical landed catch. 1,590 mt is deducted from the ACL for the Tribal fishery (1,497 mt), the incidental open access fishery (55 mt) and research catch (38 mt), resulting in a fishery HG of 23,410 mt.

o/ English sole. A stock assessment update was prepared in 2007. The stock was estimated to be at 116 percent of its unfished biomass in 2007. The OFL of 7,129 mt is based on the results of the 2007 assessment update with an F_{MSY} proxy of $F_{30\%}$. The ABC of 6,815 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. Because the stock is above $B_{25\%}$, the ACL was set equal to the ABC. 103 mt is deducted from the ACL for the Tribal fishery (91 mt), the incidental open access fishery (7 mt) and research catch (5 mt), resulting in a fishery HG of 6,712 mt.

p/ Lingcod north. A lingcod stock assessment was prepared in 2009. The lingcod biomass off Washington and Oregon was estimated to be at 62 percent of its unfished biomass in 2009. The OFL of 3,334 mt was calculated using an F_{MSY} proxy of $F_{45\%}$. The ABC of 3,036 mt was based on a 4 percent reduction from the OFL (σ =0.36/P*=0.45) for the area north of 42° N. lat. as it's a category 1 stock, and a 17 percent reduction from the OFL (σ =0.72/P*=0.40) for the area between 42° N. lat. and 40°10'N. lat. as it's a category 2 stock. The ACL was set equal to the ABC. 277.67 mt is deducted from the ACL for the Tribal fishery (250 mt), the incidental open access fishery (16 mt) and research catch (11.67 mt), resulting in a fishery HG of 2,758 mt. q/ Lingcod south . A lingcod stock assessment was prepared in 2009. The lingcod biomass off California was estimated to be at 74 percent of its unfished biomass in 2009. The OFL of 1,334 mt was calculated using an F_{MSY} proxy of $F_{45\%}$. The ABC of 1,111 mt was based on a 17 percent reduction from the OFL (σ =0.72/P*=0.40) as it's a

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category 2 stock. The ACL was set equal to the ABC. 9 mt is deducted from the ACL for the incidental open access fishery (7 mt) and EFP fishing (2 mt), resulting in a fishery HG of 1,102 mt.

r/ Longnose skate. A stock assessment was prepared in 2007 and the stock was estimated to be at 66 percent of its unfished biomass. The OFL of 2,902 mt is based on the 2007 stock assessment with an F_{MSY} proxy of $F_{45\%}$. The ABC of 2,774 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45)as it's a category 1 stock. The ACL of 2,000 mt is a fixed harvest level that provides greater access to the stock. 72.18 mt is deducted from the ACL for the Tribal fishery (56 mt), incidental open access fishery (3 mt), and research catch (13.18 mt), resulting in a fishery HG of 1,928 mt.

s/Longspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 71 percent of its unfished biomass in 2005. A coastwide OFL of 3,391 mt is based on the 2005 stock assessment with an $F_{50\%}$ F_{MSY} proxy. The ABC of 2,825 mt is a 17 percent reduction from the OFL (σ =0.72/P*=0.40) as it's a category 2 stock. For the portion of the stock that is north of 34°27' N. lat., the ACL is 2,009 mt, and is 79 percent of the coastwide OFL for the biomass found in that area reduced by an additional 25 percent as a precautionary adjustment. 46 mt is deducted from the ACL for the Tribal fishery (30 mt), the incidental open access fishery (3 mt), and research catch (13 mt) resulting in a fishery HG of 1,963 mt. For that portion of the stock south of 34°27' N. lat. the ACL is 356 mt and is 21 percent of the coastwide OFL reduced by 50 percent as a precautionary adjustment. 3 mt is deducted from the ACL for the incidental open access fishery (2 mt), and research catch (1 mt) resulting in a fishery HG of 353 mt.

t/ Minor nearshore rockfish north. The OFL of 110 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the minor rockfish complexes are based on a sigma value of 0.72 for category 2 stocks (blue rockfish in California) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 94 mt is the summed contribution of the ABCs for the component species. The ACL is set equal to the complex ABC. There are no deductions from the ACL, thus the fishery HG is equal to the ACL at 94 mt. u/ Minor shelf rockfish north. The OFL of 2,183 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the minor rockfish complexes are based on a sigma value of 0.72 for category 2 stocks (greenspotted rockfish between $40^{\circ}10^{\circ}$ to 42° N. lat. and greenstriped rockfish) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 1,920 mt is the summed contribution of the ABCs for the component species. The ACL of 968 mt is the same as the 2012 ACL. 65.24 mt is deducted from the ACL for the Tribal fishery (30 mt), the incidental open access fishery (26 mt), EFP catch (3 mt) and research catch (6.24 mt) resulting in a fishery HG of 903 mt.

v/ Minor slope rockfish north. The OFL of 1,518 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the northern minor slope rockfish complex is based on a sigma value of 0.36 for category 1 stocks (splitnose rockfish) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 1,381 mt is the summed contribution of the ABCs for the component species. The ACL of 1,160 is the same as the 2012 ACL. 62 mt is deducted from the ACL for the Tribal fishery (36 mt), the incidental open access fishery (19 mt), EFP catch (1 mt) and research catch (6 mt), resulting in a fishery HG of 1,098 mt.

w/ Minor nearshore rockfish south. The OFL of 1,164 mt is the sum of the OFL contributions for the component species within the complex. The ABC for the southern minor nearshore rockfish complex is based on a sigma value of 0.36 for category 1 stocks (gopher rockfish north of 34°27' N. lat.), 0.72 for category 2 stocks (blue rockfish north of 34°27' N. lat.) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting minor nearshore rockfish south ABC, which is the summed contribution of the ABCs for the component species within the complex, is 1,005 mt. The ACL is 990 mt; the same as the 2012 ACL. There are no deductions from the ACL, resulting in a fishery HG of 990 mt. Blue rockfish south of 42° N. latitude has a species-specific HG of 236 mt. x/ Minor shelf rockfish south. The OFL of 1.910 mt is the sum of the OFL contributions for the component species

x/ Minor shelf rockfish south. The OFL of 1,910 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the southern minor shelf rockfish complex is based on a sigma value of 0.72 for category 2 stocks (greenspotted and greenstriped rockfish) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 1,617 mt is the summed contribution of the ABCs for the component species. The ACL of 714 mt is the same as the 2012 ACL. 46 mt is deducted from the ACL for the incidental open access fishery (9 mt), EFP catch (31 mt) and research catch (6 mt), resulting in a fishery HG of 668 mt.

y/ Minor slope rockfish south. The OFL of 681 mt is the sum of the OFL contributions for the component species within the complex. The ABC for the southern minor slope rockfish complex is based on a sigma value of 0.72 for category 2 stocks (bank and blackgill rockfish) and 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 618 mt is the summed contribution of the ABCs for the component species. The ACL is equal to the ABC. 21 mt is deducted from the ACL for the incidental open access fishery (17 mt), EFP catch (2 mt) and research catch (2 mt), resulting in a fishery HG of 597 mt. Blackgill rockfish has species-specific HGs: 26.4 mt for the limited entry fixed gear fishery; 17.6 mt for the open access fishery.

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z/ "Other fish" is composed entirely of groundfish FMP species that are neither rockfish (family Scorpaenidae) nor flatfish, and most of these species are unassessed, with the exception of spiny dogfish, which was assessed in 2011 and is a category 2 stock. The OFL of 6,832 mt is the sum of the OFL contributions for the component species within the complex. The OFL contribution for spiny dogfish is projected from the 2011 assessment using an $F_{45\%}$ F_{MSY} proxy harvest rate. The ABC of 4,717 mt is calculated by applying a P* of 0.40 and a sigma of 1.44 to the OFLs calculated for the category 3 stocks (i.e., all stocks other than spiny dogfish) and a P* of 0.30 and a sigma of 0.72 to the OFL calculated for spiny dogfish. The resulting ABC for the complex is the summed contribution of the ABCs calculated for the component stocks. The ACL is set equal to the ABC. 177 mt is deducted from the ACL for the Tribal fishery (112 mt), the incidental open access fishery (50 mt), EFP catch (3 mt) and research catch (12 mt), resulting in an "other fish" fishery HG of 4,540 mt.

aa/ "Other flatfish" are the unassessed flatfish species that do not have individual OFLs/ABCs/ACLs and include butter sole, curlfin sole, flathead sole, Pacific sand dab, rex sole, rock sole, and sand sole. The other flatfish OFL of 10,060 mt is based on the sum of the OFL contributions of the component stocks. The ABC of 6,982 mt is a 31 percent reduction from the OFL (σ =1.44/P*=0.40) as the complex is composed of category 3 stocks. The ACL of 4,884 mt is the 2011 and 2012 ACL carried forward as there have been no significant changes in the status or management of stocks within the complex. 202 mt is deducted from the ACL for the Tribal fishery (60 mt), the incidental open access fishery (125 mt), and research catch (17 mt), resulting in a fishery HG of 4,682 mt. bb/ Pacific cod. The 3,200 mt OFL is based on the maximum level of historic landings. The ABC of 2,221 mt is a 31 percent reduction from the OFL (σ =1.44/P*=0.40) as it's a category 3 stock. The 1,600 mt ACL is the OFL reduced by 50 percent as a precautionary adjustment. 409.04 mt is deducted from the ACL for the Tribal fishery (400 mt), research fishing (7.04 mt), and the incidental open access fishery (2.0 mt), resulting in a fishery HG of 1,191 mt. cc/ Pacific Ocean Perch (POP). A POP stock assessment was prepared in 2011 and the stock was estimated to be at 19.1 percent of its unfished biomass in 2011. The OFL of 844 mt for the area north of 40°10' N. lat. is based on the 2011 stock assessment with an F_{50%} F_{MSY} proxy. The ABC of 807 mt is a 4 percent reduction from the OFL $(\sigma=0.36/P*=0.45)$ as it's a category 1 stock. The ACL of 150 mt is based on a rebuilding plan with a target year to rebuild of 2051 and an SPR harvest rate of 86.4 percent. 16.5 mt is deducted from the ACL for the Tribal fishery (10.9 mt), open access fishery (0.4 mt) and research catch (5.2 mt), resulting in a fishery HG of 133.5 mt. dd/ Pacific whiting. The most recent stock assessment was prepared in January 2013. The 2013 Fishery Harvest Guideline (Fishery HG) is calculated as follows. U.S. TAC of 269,745 mt minus 63,205 mt for the Tribal allocation minus 2,500 mt for catch in research activities and as non-groundfish bycatch, resulting in a fishery harvest guideline of 204,040 mt. The TAC for Pacific whiting is established under the provisions of the Pacific Hake/Whiting Agreement with Canada and the Pacific Whiting Act of 2006, 16 U.S.C. 7001-7010, and the international exception applies. Therefore, no ABC or ACL values are provided for Pacific whiting. The 2013 OFL of 626,364 mt is based on the 2013 assessment with an $F_{40\%}$ F_{MSY} proxy.

ee/ Petrale sole. A petrale sole stock assessment was prepared for 2011. In 2011 the petrale sole stock was estimated to be at 18 percent of its unfished biomass. The OFL of 2.711 mt is based on the 2011 assessment with an $F_{30\%}$ F_{MSY} proxy. The ABC of 2.592 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. The ACL is set equal to the ABC. 234 mt is deducted from the ACL for the Tribal fishery (220 mt), the incidental open access fishery (2.4 mt), and research catch (11.6 mt), resulting in a fishery HG of 2.358 mt.

ff/ Sablefish north. A coastwide sablefish stock assessment was prepared in 2011. The coastwide sablefish biomass was estimated to be at 33 percent of its unfished biomass in 2011. The coastwide OFL of 6,621 mt is based on the 2011 stock assessment with an F_{MSY} proxy of $F_{45\%}$. The coastwide ABC of 6,045 mt is an 8.7 percent reduction from the OFL (σ =0.36/P*=0.40). The 40-10 harvest policy was applied to the ABC to derive a coastwide ACL value. Then the ACL value was apportioned, north and south of 36° N. lat., using the average of annual swept area biomass (2003-2010) from the NMFS NWFSC trawl survey, between the northern and southern areas with 73.6 percent going to the area north of 36° N. lat. and 26.4 percent going to the area south of 36° N. lat. The northern ACL is 4,012 mt and is reduced by 401 mt for the tribal allocation (10 percent of the ACL north of 36° N. lat.). The 401 mt Tribal allocation is reduced by 1.5 percent to account for discard mortality. Detailed sablefish allocations are shown in Table 1c.

gg/ Sablefish south. The ACL for the area south of 36° N. lat. is 1,439 mt (26.4 percent of the calculated coastwide ACL value). 5 mt is deducted from the ACL for the incidental open access fishery (2 mt) and research catch (3 mt), resulting in a fishery HG of 1,434 mt.

hh/ Shortbelly rockfish. A non-quantitative assessment was conducted in 2007. The spawning stock biomass of shortbelly rockfish was estimated at 67 percent of its unfished biomass in 2005. The OFL of 6,950 mt was recommended for the stock in 2013 with an ABC of 5,789 mt (σ =0.72 with a P* of 0.40). The 50 mt ACL is slightly

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higher than recent landings and is in recognition of the stock's importance as a forage species in the California Current ecosystem. 2 mt is deducted from the ACL for research catch, resulting in a fishery HG of 48 mt. ii/ Shortspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 63 percent of its unfished biomass in 2005. A coastwide OFL of 2,333 mt is based on the 2005 stock assessment with an $F_{50\%}$ F_{MSY} proxy. The coastwide ABC of 2,230 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. For the portion of the stock that is north of 34°27' N. lat., the ACL is 1,540 mt. The northern ACL is 66 percent of the coastwide OFL for the portion of the biomass found north of 34°27' N. lat. 59.22 mt is deducted from the ACL for the Tribal fishery (50 mt), the incidental open access fishery (2 mt), and research catch (7.22 mt) resulting in a fishery HG of 1,481 mt for the area north of 34°27' N. lat. For that portion of the stock south of 34°27' N. lat., the ACL is 397 mt which is 34 percent of the coastwide OFL for the portion of the biomass found south of 34°27' N. lat. reduced by 50 percent as a precautionary adjustment. 42 mt is deducted from the ACL for the incidental open access fishery (41 mt), and research catch (1 mt), resulting in a fishery HG of 355 mt for the area south of 34°27' N. lat.

jj/ Splitnose rockfish. A coastwide assessment was prepared in 2009 that estimated the stock to be at 66 percent of its unfished biomass in 2009. Splitnose in the north is managed under the minor slope rockfish complex and with species-specific harvest specifications south of 40°10' N. lat. The OFLs were apportioned north and south based on the average 1916-2008 assessed area catch resulting in 64.2 percent stock-specific OFL south of 40°10' N. lat, and 35.8 percent for the contribution of splitnose rockfish to the northern minor slope rockfish complex OFL. South of $40^{\circ}10$ N. lat., the OFL of 1,684 mt is based on the 2009 assessment with an F_{MSY} proxy of $F_{50\%}$. The ABC of 1,610 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the ACL is set equal to the ABC. 12 mt is deducted from the ACL for research catch (9 mt) and EFP catch (3 mt), resulting in a fishery HG of 1,598 mt. kk/ Starry Flounder. The stock was assessed in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. For 2013, the coastwide OFL of 1,825 mt is based on the 2005 assessment with an F_{MSY} proxy of $F_{30\%}$. The ABC of 1,520 mt is a 17 percent reduction from the OFL (σ =0.72/P*=0.40) as it's a category 2 stock. Because the stock is above B_{25%}, the ACL was set equal to the ABC. 7 mt is deducted from the ACL for the Tribal fishery (2 mt)and the incidental open access fishery (5 mt), resulting in a fishery HG of 1,513 mt. II/ Widow rockfish. The stock was assessed in 2011 and was estimated to be at 51.1 percent of its unfished biomass in 2011. The OFL of 4,841 mt is based on the 2011 stock assessment with an $F_{50\%}$ F_{MSY} proxy. The ABC of 4,598 mt is a 5 percent reduction from the OFL (σ =0.41/P*=0.45). A unique sigma of 0.41 was calculated for widow rockfish since the estimated variance in estimated biomass was greater than the 0.36 used as a proxy for other category 1 stocks. A constant catch strategy will be used with an ACL of 1,500 mt. 89.2 mt is deducted from the ACL for the Tribal fishery (60 mt), the incidental open access fishery (89.2 mt), EFP catch (18 mt) and research catch (7.9 mt), resulting in a fishery HG of 1,411 mt.

mm/ Yelloweye rockfish. A stock assessment update was prepared in 2011. The stock was estimated to be at 21.3 percent of its unfished biomass in 2011. The 51 mt coastwide OFL was derived from the base model in the new stock assessment with an F_{MSY} proxy of $F_{50\%}$. The ABC of 43 mt is a 17 percent reduction from the OFL (σ =0.72/P*=0.40) as it's a category 2 stock. The 18 mt ACL is based on a rebuilding plan with a target year to rebuild of 2074 and an SPR harvest rate of 76.0 percent. 5.82 mt is deducted from the ACL for the Tribal fishery (2.3 mt), the incidental open access fishery (0.2 mt), EFP catch (0.02 mt) and research catch (3.3 mt) resulting in a fishery HG of 12.2 mt. Recreational HGs are being established: Washington, 2.9; Oregon, 2.6 mt; and California, 3.4 mt.

nn/ Yellowtail rockfish. A yellowtail rockfish stock assessment update was last prepared in 2005 for the area north of 40°10′ N. latitude to the U.S-Canadian border. Yellowtail rockfish was estimated to be at 55 percent of its unfished biomass in 2005. The OFL of 4,579 mt is based on the 2005 stock assessment with the F_{MSY} proxy of $F_{50\%}$. The ABC of 4,378 mt is a 4 percent reduction from the OFL (σ =0.36/P*=0.45) as it's a category 1 stock. The ACL was set equal to the ABC, because the stock is above $B_{40\%}$. 701.49 mt is deducted from the ACL for the Tribal fishery (677 mt), the incidental open access fishery (3 mt), EFP catch (10 mt) and research catch (11.49 mt), resulting in a fishery HG of 3,677 mt.

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